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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

JACKSON, MONIQUE R

ART UNIT

PAPER NUMBER

1773

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6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/627,312

Applicant(s)

KUCERA, HALMUT W.

Examiner

Monique R Jackson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. The disclosure is objected to because of the following informalities: at page 5, line 10 the term "those derived ethylenically unsaturated" should read include the term "from" or similar term between "derived" and "ethylenically".

Appropriate correction is required.

Claim Objections

2. Claim 8 is objected to because of the following informalities: at line 4, a comma is needed after "organo-phosponate acid". Appropriate correction is required.

3. Claim 16 is objected to because of the following informalities: at line 2, the comma after "aromatic nitrosulfonates" should be a semi-colon in order to be consistent with the other semi-colons separating the items of the list.

4. Claim 17 is objected to because of the following informalities: at line 2, "initrobenzenesulfonate" is misspelled and should probably read "dinitrobenzenesulfonate" as at Page 17, line 6 of the specification. Appropriate correction is required.

5. Claim 18 is objected to because of the following informalities: at line 2, the comma after "comprises" should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A claim in which one ingredient is defined so broadly that it reads upon

a second does not meet the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Ferm and Boynton*, 162 USPQ (BdPatApp & Int 1969.) In the instant case, the “coating forming component” and the “flexibilizer” in the treatment conversion coating as well as the “organic film forming protective component” and the “flexibilizer” in the protective coating are defined so broadly that the term “flexibilizer” reads on both the “coating forming component” and “organic film forming protective component” and hence it is unclear as to what the treatment coating and the protective coating actually comprise.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

9. Claims 1-11, 13-15, 22-35, 37-39 and 46-48 are rejected under 35 U.S.C. 102(a) as being anticipated by WO 99/37722 (WO'722). WO'722 teaches an aqueous autodepositable metal surface treatment composition that includes:

(A) an aqueous dispersion of a phenolic novolak resin (*as in instant claims 1,3,10,22 and 24, 27, 30, 31*) that includes a reaction product of:

(i) a phenolic resin precursor,

(ii) a modifying agent wherein the agent includes:

(a) at least one functional moiety that enables the modifying agent to react with the phenolic resin precursor, and

(b) at least one ionic moiety, and

(c) comprises a structure represented by formula Ia or Ib (*as in instant claims 23 and 25*)

(iii) at least one multi-hydroxyl phenolic compound, and

- (B) an acid, preferably phosphoric acid (*as in instant claims 1, 8, 9*), and further includes,
- (C) a flexibilizer (*as in instant claim 7*), and
- (D) a control agent

wherein the control agent is any material able to improve the formation of an autodeposited coating on a metallic surface and optionally improve the formation of another autodeposited coating applied after the control agent-containing autodeposited coating, such as a nitro compound, a nitroso compound, an oxime compound, a nitrate compound, or a similar material (*accelerator as in instant claims 2, 11, 14, 29, 35 and 47*; Abstract; Page 3, line 12-Page 4, lines 2; Page 6, lines 1-11; Pages 7-9; Page 14, lines 29-32; Page 15, lines 12-27; Claims 1 and 7.) WO'722 teach that the aqueous metal treatment composition improves adhesion to subsequent coatings such as primers and adhesives to the metal surface, improves corrosion resistance, requires a minimum number of coatings of less than 3, and can activate a metal surface for autodeposition of a subsequently applied coating or primer that includes a dispersed phenolic resin as described above, such as a primer described in more detail in commonly-owned U.S. Provisional Patent Application 60/072779, incorporated by reference, which includes an aqueous dispersed phenolic resin (*as in instant claims 1, 4, 5, 26, 27, 33*; Page 21, lines 1-8). WO'722 further teach that since the dispersed phenolic resin (A) is a novolak, a curative should be introduced in order to cure the film formed by the metal treatment composition and can be applied by the application of a curative-containing topcoat over the metal treatment film (Page 20, lines 12-22.) WO'722 teach that typically the metal treatment composition is applied to a metal surface and then dried and then a curative-containing topcoat or primer, such as a topcoat containing an aldehyde donor compound such as methylol phenolic compounds and/or an aromatic nitroso (oxo-nitrogen) compound, preferably dinitroso aromatic compounds, especially

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dinitrosobenzenes and dinitrosonaphthalenes (*blister suppressing agent or oxidizing agent as in instant claims 1, 13, 14, 15, 27, 28, 32, 37, 38, 39*), is applied to the thus treated metal surface (*as in instant claims 27, 46-48, Page 20, lines 12-22; Page 22, lines 8-31.*) WO'722 further teach an example wherein the metal treatment conversion composition is autodeposited to a metal surface, dried, and then a primer composition comprising a phenolic resole, a naphthalenesulfonate, sodium salt, water, polyvinyl alcohol-stabilized resole and dichlorobutadine homopolymer (*flexibilizers as in instant claims 6 and 34*) is autodeposited as a primer coating on the treated metal surface which is then dried, and then the treated and primed metal surface is overcoated with an adhesive to adhere the treated and primed metal surface to an injection molded elastomer (*as in instant claims 46-48; Examples, particularly example 5.*)

10. Claims 1-11, 13, 22-35, 37 and 46-48 are rejected under 35 U.S.C. 102(a) as being anticipated by WO 99/37713 (WO'713.) WO'713 teaches a electrodepositable primer or coating composition that includes an aqueous dispersion of (A) a phenolic resin, (B) a flexibilizer, and (C) an aldehyde donor compound (*blister suppressing agent/oxidizing agent*) that can be used as a primer for polymer-to-metal adhesion wherein the coating can be applied to an activated metallic surface and then topcoated with an adhesive overcoat and then bonded to a polymer surface such as an elastomeric material; and wherein the activated metallic surface can be formed by applying and drying an autodepositable, aqueous metal treatment conversion composition comprising (A') an aqueous dispersion of a phenolic novolak resin, (B') an acid, preferably phosphoric acid, (C') a flexibilizer (*as in instant claim 7*), and (D') a control agent (*accelerator as in instant claims 1-10, 13, 26-34, 37, 46-48; Abstract; Page 4, lines 24-32; Page 22, line 19- Page 23, line 2; Page 24, lines 11-25; Page 25, lines 3-32; Page 26, lines 1-29; Page 28, line 19-*

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Page 29, line 21; Examples.) WO'713 teaches that the aqueous dispersion phenolic novolak resin (A') of the treatment composition can be the same as the phenolic resin in the primer composition which includes a reaction product of: (i) a phenolic resin precursor; (ii) a modifying agent wherein the agent includes: (a) at least one functional moiety that enables the modifying agent to react with the phenolic resin precursor, and (b) at least one ionic moiety, and (c) comprises a structure represented by formula Ia or Ib (*as in instant claims 23 and 25*); and (iii) at least one multi-hydroxyl phenolic compound (*as in instant claims 22-25*; Page 25, lines 27-32; Page 7-Page 10.) WO'713 teaches that the control agent is any material that is able to improve the formation of an autodeposited coating on a metallic surface and may be a nitro compound, a nitroso compound, an oxime compound, a nitrate compound, or a similar material (*accelerator as in instant claims 11 and 35*; Page 27, lines 6-30.)

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 12, 16-21, 36 and 40-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO'722 in view of DebRoy et al (USPN 4,755,418) or Dobbstein et al (USPN 4,780,524) or Nakashio et al (USPN 5,908,911.) The teachings of WO'722 are discussed above. WO'722 teaches that the autodepositable treatment composition further comprises a control agent that can be any compound that is able to improve the formation of an autodeposited coating on a metallic surface such as nitrates or oximes but does not teach that the control agent

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is hydroxylamine (Page 25, lines 10-23.) However, hydroxylamine is a known functional equivalent to oximes in electrodepositable aqueous compositions as evidenced by DebRoy et al (Col. 4, lines 4-15) or Dobbelstein et al (Col. 7, lines 37-44) or Nakashio et al (Col. 3, lines 37-62) wherein it is known in the art that oximes or hydroxylamines act to control the curing of the electrodeposited composition. Hence, in terms of claims 12, 20, 21, 36, 44 and 45, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize hydroxylamine, a known functional equivalent to oximes, in the invention taught by WO'722. Further, WO'722 teaches that though the control agent is especially useful in the metal treatment composition of the invention, it could also be useful in any multi-component composition that includes an autodepositable component and that the control agent is preferably an organic nitro compound such as nitroguanidine and nitro or dinitrobenzenesulfonate and salts thereof, and is more preferably a mixture of nitroguanidine and sodium nitrobenzenesulfonate for commercial availability and regulatory reasons (Page 23, lines 15-29; Page 25, lines 10-32. Hence, in terms of claims 16-19, 38-39, 40-43, considering WO'722 teach that the subsequently applied primer composition is also an electrodepositable aqueous multi-component phenolic composition similar to that of the metal treatment composition, it would have been obvious to one having ordinary skill in the art to include a similar control agent in the electrodepositable primer coating composition as well given that WO'722 teach that a control agent can be utilized in any electrodepositable coating composition to improve the formation of the autodeposited coating on the metal surface, wherein WO'722 teach that an especially preferred control agent for commercial availability and regulatory reasons is a mixture of nitroguanidine and sodium nitrobenzenesulfonate.

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13. Claims 12 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO'713 in view of DebRoy et al (USPN 4,755,418) or Dobbelstein et al (USPN 4,780,524) or Nakashio et al (USPN 5,908,911.) The teachings of WO'713 are discussed above. WO'713 teaches that the autodepositable metal treatment composition comprises a control agent that can be any compound that is able to improve the formation of an autodeposited coating on a metallic surface such as nitrates or oximes but does not teach that the control agent is hydroxylamine (Page 27, lines 6-30.) However, hydroxylamine is a known functional equivalent to oximes in electrodepositable aqueous compositions as evidenced by DebRoy et al (Col. 4, lines 4-15) or Dobbelstein et al (Col. 7, lines 37-44) or Nakashio et al (Col. 3, lines 37-62) wherein it is known in the art that oximes or hydroxylamines act to control the curing of the electrodeposited composition. Hence, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize hydroxylamine, a known functional equivalent to oximes, in the invention taught by WO'713.

Double Patenting

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 1-48 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6-8, 12, 15, 19, 21-22, 26, 28, 33-44, and 50-59 of U.S. Patent No. 6,383,307 in view of WO'722. USPN 6,383,307 claims an aqueous autodeposition composition comprising a phenolic resin that is the reaction product of a phenolic compound with an aldehyde compound, an acid and at least one control agent selected from a nitro compound, a nitroso compound, an oxime compound and a nitrate compound; and a method of applying the composition to a metallic surface and a method of applying a second autodeposition composition or adhesive primer or adhesive covercoat as claimed in claims 38, 53 and 54. Though USPN'307 specifically claims the same components of the instant invention individually in various independent or dependent claims (1, 6-8, 12, 15, 19, 21-22, 26, 28, 33-37, 39-44, 50-52, 55-59), USPN'307 does not specifically claim the same combination as in the instant application. However, WO'722, as discussed above, teaches or renders obvious the instantly claimed combinations wherein it specifically discloses that the phenolic resin is preferably the same as the resin of the instant invention with the same modifying agents and further teaches that the metal treatment composition is electrocoated to the metallic surface, dried and then an electrodeposited primer composition as instantly claimed in provided over the treated composition so that the treated and primed metallic surface can be overcoated with an adhesive and adhered to an elastomer material. Considering WO'722 teach that the control agent may be oximes or like materials, hydroxylamines would have been obvious to one skilled in the art given that they are known functional equivalents to oximes. Further, considering WO'722 teaches that the control agent is especially useful in the metal treatment composition of the invention but could also be useful in any multi-component composition that includes an

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autodepositable component and that the control agent is preferably an organic nitro compound such as nitroguanidine and nitro or dinitrobenzenesulfonate and salts thereof, and is more preferably a mixture of nitroguanidine and sodium nitrobenzenesulfonate for commercial availability and regulatory reasons, it would have been obvious to one having ordinary skill in the art to include a similar control agent in the electrodepositable primer coating composition as well given that WO'722 teach that a control agent can be utilized in any electrodepositable coating composition to improve the formation of the autodeposited coating on the metal surface.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Monique R. Jackson
Patent Examiner
Technology Center 1700
June 17, 2002